REMARKS

In the Decision on Appeal decided on December 22, 2009 (the "Decision"), the Board of Patent Appeals and Interferences ("the Board") affirmed the Examiner's rejections of claims 1-3, 5-7, 9-11, 13-15, 17-19, 21-23, 25-27, 29-31, 33-35, and 37-39 under 35 U.S.C. §102(b), affirmed the Examiner's provisional rejection of claims 1-40 under the doctrine of obviousness-type double patenting, and reversed the Examiner's rejection of claims 4, 8, 12, 16, 20, 24, 28, 32, 36, and 40 under 35 U.S.C. §102(b). In view of the Decision, Applicant hereby elects to reopen prosecution pursuant to 37 C.F.R. § 41.50(a). By this Response, claims 1-3, 5-7, 9-11, 13-15, 17-19, 21-23, 25-27, 29-31, 33-35, and 37-39 are canceled, leaving claims 4, 8, 12, 16, 20, 24, 28, 32, 36, and 40 pending. In view of the foregoing amendments and following remarks, Applicants respectfully request reconsideration and allowance of all pending claims.

Affirmed Provisional Double-Patenting Rejection of Claims 1-40

In the Decision, the Board affirmed the Examiner's provisional rejection of claims 1-40 as being unpatentable under the doctrine of obviousness-type double patenting in view of claims 1-32 of co-pending application serial no. 10/723,894. *See* Decision, page 3. Applicants hereby submit a properly executed terminal disclaimer. Applicants respectfully submit that the terminal disclaimer obviates the obviousness-type double patenting rejection.

<u>Affirmed Rejections of Claims 1-3, 5-7, 9-11, 13-15, 17-19, 21-23, 25-27, 29-31, 33-35, and 37-39 under 35 U.S.C. §102</u>

In the Decision, the Board affirmed the Examiner's rejections of claims 1-3, 5-7, 9-11, 13-15, 17-19, 21-23, 25-27, 29-31, 33-35, and 37-39 under 35 U.S.C. §102(b) as being anticipated by the publication entitled, "Preliminary Studies of Cardiac Motion in Positron Emission Tomography," by Huesman et al. (hereinafter "the Huesman reference"). *See, generally*, Decision, pages 8-13. By the present Response, Applicants

have canceled claims 1-3, 5-7, 9-11, 13-15, 17-19, 21-23, 25-27, 29-31, 33-35, and 37-39, thereby rendering any outstanding rejection of claims 1-3, 5-7, 9-11, 13-15, 17-19, 21-23, 25-27, 29-31, 33-35, and 37-39 moot.

Reversed Rejections of Claims 4, 8, 12, 16, 20, 24, 28, 32, 36, and 40

With regard to the Examiner's rejection of claims 4, 8, 12, 16, 20, 24, 28, 32, 36, and 40 under 35 U.S.C. §102(b), the Board stated in the Decision that "the [Examiner's] rejection acknowledges the claims contain means-plus-function language, but states only that 'all means and steps recited in these claims are anticipated by the Huesman (2001) reference as discussed above." *Id.* at page 14. The Board further noted that the Examiner's rejection "falls short of an analysis of the structure recited by the Specification for performing the various claims functions as it relates to the structure or its equivalent in the prior art." *Id.*

In light of these findings, the Board reversed the Examiner's rejection of claims 4, 8, 12, 16, 20, 24, 28, 32, 36, and 40. Accordingly, Applicants hereby submit that these claims are presently in condition for allowance. As such, Applicant respectfully requests withdrawal of the Section 102 rejection and allowance of independent claims 4, 8, 12, 16, 20, 24, 28, 32, 36, and 40.

Serial No. 10/723,857 Amendment and Response to Decision on Appeal

Mailed December 22, 2009

Page 10

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully

request allowance of the pending claims. If the Examiner believes that a telephonic

interview will help speed this application toward issuance, the Examiner is invited to

contact the undersigned at the telephone number listed below.

Respectfully submitted,

Date: February 12, 2010 /John Rariden/

John M. Rariden Reg. No. 54,388 FLETCHER YODER P.O. Box 692289 Houston, TX 77269-2289

(281) 970-4545